Optimizing the Medical Discovery to Delivery Translational Cycle

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In the current issue, Heintz, et al. found evidence supporting the efficacy of the collaborative Alzheimer's disease and other related dementia (ADRD) care model in reducing the behavioral and psychological symptoms of patients and the burden on their informal caregivers, improving the quality of ADRD care, and delaying nursing home placement without increasing total cost.[1] The authors examined the challenges associated with current healthcare policy and reimbursement models and noted that current "long-standing frameworks are resistant to change," and go on to suggest that the success of collaborative care requires cooperation and buy-in across the spectrum of payers, providers, regulators, patients and their caregivers.

Over the past decade, our groups at Indiana University have used insights from behavioral economics, complexity science, and network science to develop a framework to optimize the current translational cycles (see figure).[2,3] This framework suggests a specific allocation of intellectual and financial capital to achieve results. Specifically, it suggests

This is the author's manuscript of the article published in final edited form as:
Braly, T., Boustani, M., & Lock, S. L. (2019). Optimizing the Medical Discovery to Delivery Translational Cycle. The American Journal of Geriatric Psychiatry. https://doi.org/10.1016/j.jagp.2019.09.005

allocating 5% of national resources (e.g., federal research funds from the National Institutes of Health, federal funding from the Centers for Medicare and Medicaid Services) into the agile discovery of evidence-based models, 10% into the agile packaging of the evidence-based models, 15% into the agile distribution of the packaged evidence-based models, 20% into the agile implementation of the evidence-based models, and 50% into the agile development of market demand for the evidence-based models. The term “agile” in our framework refers to the use of rapid, iterative, and adaptive problem-solving processes.

Our framework emphasizes the vital rule of creating market demand for the collaborative ADRD care models and the development of effective implementation process. We suggest two parallel policy strategies to create market demand. We have previously outlined the first strategy of creating a per-member-per-month (PMPM) alternative payment model to cover the expenses of delivering the collaborative ADRD care models.[4] The second strategy is to place financial power in the hands of those who know the problem the best: the patients and their informal caregivers. A simple first step in the right direction would be to allow for Health Savings Account (HSA) spending and distribute the PMPM CMS payments into these HSAs. An informal caregiver could then use those funds to select the right providers of the collaborative ADRD care model.

Over the past decade Indiana University has developed the Agile Implementation methodology that has been used to successfully implement and sustain the collaborative ADRD care model in an urban, safety-net healthcare system.[5,6] Rooted in theories of complex adaptive systems and behavioral economics, the Agile Implementation methodology describes how to create choice architectures and “nudges” that encourage behavior, while acknowledging the uniqueness of each healthcare delivery system.[3,5]

The Agile Implementation process has eight steps for identifying, localizing, implementing, sustaining, and scaling evidence-based solutions:

Step 1. Identify Opportunities: This key step is often underestimated. The return on the possible opportunity must be examined to ensure not only a clinical need, but that a solution is also in alignment with the goals of providers, administrators, and regulators, as well as those of patients and their informal caregivers.

Step 2. Identify evidence-based solutions: the Agile Implementation process is built around exploiting prior research. This improves buy-in from staff and provides an empirical grounding on which the likelihood of a successful project is built.

Step 3. Develop evaluation and termination plans: in this step, leaders develop an evaluation protocol and determine criteria for when and how to terminate an intervention that is not achieving the desired results.

Step 4. Assemble a team to develop a minimally viable service: this step addresses the fact that each system has its own quirks. The team identifies the details of the evidence-based solutions that are required for maintaining its fidelity in a new context. For collaborative ADRD care models, these details may include high levels of communication, shared decision-making, and support for caregivers, as mentioned by Heintz, et al.

Step 5. Perform implementation sprints: during this step, short, iterative cycles of implementation are employed to continuously incorporate lessons learned and customize the solution to be effective for the local environment and setting.

Step 6. Monitor implementation performance: continuous feedback loops allow gathered information on the solution's performance to iteratively guide the system towards the desired outcomes.

Step 7. Monitor whole system performance: changes in one area of a healthcare delivery system can have impacts throughout the system. This step ensures that unintentional

consequences are detected, and any emergent opportunities or unanticipated benefits can be exploited.

Step 8. Develop a minimally standardized operating procedure: once the solution is finalized, the team develops a minimally standardized operating procedure to allow for the solution to be incorporated at other locations or settings, or to be scaled to larger populations or environments. The standardized operating procedure is updated on a regular basis.

In conclusion, the combination of effective market demand and the Agile Implementation methodology may help to facilitate adoption of the evidence-based collaborative ADRD model reach every American living with ADRD.

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